

## Similia similibus curantur: using DPP-IV inhibitor to treat reactive hypoglycaemia over 1 year

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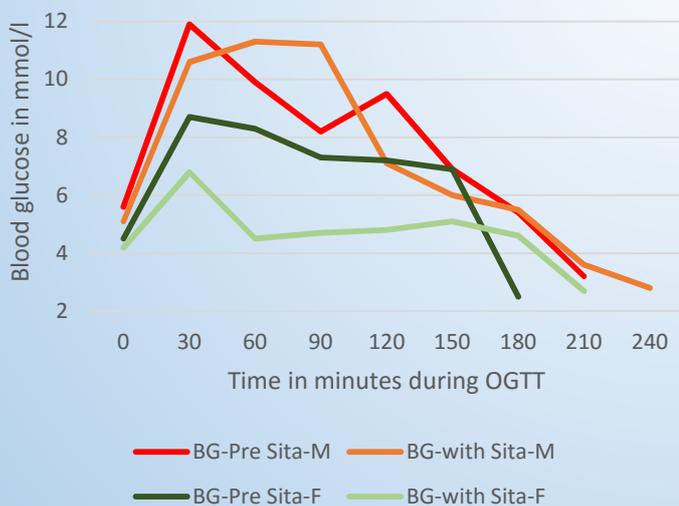
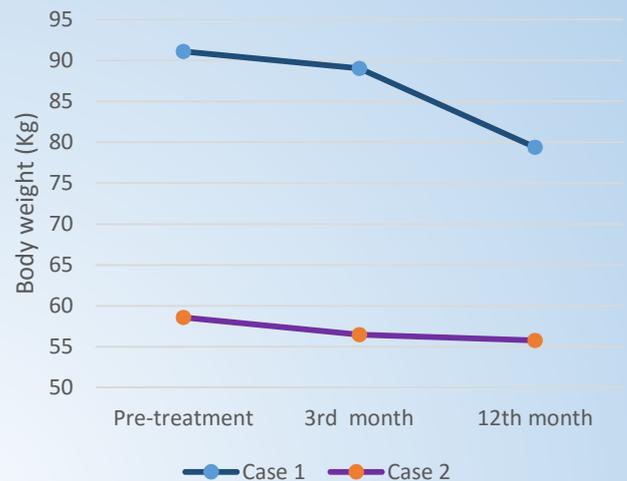
Reactive hypoglycaemia (RH) is a complex problem, with no definite treatment apart from lifestyle changes. We used Sitagliptin in two patients with RH, who had tried lifestyle changes for at least 2 years but without much effect. Sitagliptin, a member of the DPP-IV inhibitor group, has been useful in treating hyperglycaemia effectively.

**Case 1:** One male patient with initial BMI of 31.4 kg/m<sup>2</sup> was treated with Sitagliptin 100 mg daily, in view of his body weight and thereby volume of distribution, with informed consent about this unlicensed indication.

**Case 2:** One female patient of BMI 24.1 kg/m<sup>2</sup> was treated with Sitagliptin 50 mg daily, in view of her body weight and thereby volume of distribution, with informed consent about this unlicensed indication.

Within 2 weeks of starting the treatment, the hypoglycaemic episodes had completely disappeared in both of them. By the first month, they had started losing weight as well. This along with absence of any significant hypoglycaemia, had improved their quality of life significantly. OGTT was repeated after 6 months of treatment and the results are as below.

Change in weight with Sitagliptin



	Male	Female
Change in weight (Kg)	11.7	2.8
Change in Fasting Blood glucose (mmol/l)	0.5	0.3
Difference between Peak to trough blood glucose (mmol/l)	8.7 vs 7.8	5.2 vs 4.1
Rate of drop of blood glucose (mmol/l/hr)	2.5 vs 2.2	1.8 vs 1.2

**Conclusions:** DPP-IV inhibitors can be useful adjuncts to patients with RH on a long term. The main mechanisms aiding in reducing the hypoglycaemic episodes could be:

- Glucose dependent insulin release facilitated by GLP-1.
- Reduction in gut motility and gastric emptying facilitated by raised GLP-1 and GIP.
- Glucagon like activity of increased plasma level of GLP-1

There has been only one study till date which showed similar results, albeit on a much shorter term (28 patients over 2 weeks; Francisco Gomez-Perez <http://press.endocrine.org/doi/abs/10.1210/endo-meetings.2012.DGM.10.SUN-209>). Further studies on larger number of patients and over longer duration need to be done to determine the efficacy over a long-term period among these patients.